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PROGRAM MEG0401

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MINE EVALUATION GROUP (MEG)

MINING RESEARCH LABORATORIES

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PROGRAM MEG0401

by

R. Boyle*

GENERAL DESCRIPTION

Program MEG0401 is part of the CADD (Collection and Analysis of Drill hole Data) system (1) and is used to edit drill hole information already coded (2). The editing consists of sorting data and finding some basic codification errors.

The key variables of the sorting are: the MEG series code, the line number, the intercalation number, the sheet type and the activity code.

The codification errors detected by this program are: either MEG series code, alphanumeric line or intercalation number is wrong; line number is greater than 200; sheet type is neither A nor B and finally activity code is neither I, R, D (for Insert, Replace, Delete) nor a blank.

CAPACITY

The maximum number of A or B records for each drill hole is 200. The program can be run with any number of drill holes.

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INPUT

CONTROL CARDS*

**1 HO401,CM67000,T50,IØ200, MT1,P2.
 2 ACCOUNT,XXXXX.
 **3 ATTACH,MEG0401,MEG0401,ID=MEGPB,PW=XXX,MR=1.
 **4 LABEL,DSKFTN,W,L=ZZZZ...Z,T=999.
 5 LDSET,PRESET=ZERØ
 **6 MEG0401.
 ***7 EXIT,S.
 ***8 REWIND,INPUT,1.
 ***9 SKIPF,INPUT,1.
 ***10 CØPYCF,INPUT,TAPE10.
 ***11 REWIND,TAPE10.
 ***12 CØPYSBF,TAPE10,ØUTPUT.
 7/8/9

Input data cards (ie. drill hole information)
 7/8/9
 6/7/8/9

*For more information concerning the manipulation of the control cards, refer to the NOS/BE 1 reference manual (3).

(**1) Job card, MT1 is required in case one uses a magnetic tape with 7 tracks. (NT1 for a 9 track tape).

(**3) The binary version of MEG0401 is attached. MR=1, multiple reading is granted.

(**4) Magnetic tape is mounted. L=ZZZZZ is the label with a maximum of 17 characters. The logical file name must be DSKFTN.

(**6) MEG0401 is executed.

*** These control cards are optional and are executed by the computer only if a fatal error is encountered.

DATA CARDS

Card No. 1

Col.

1 to 3 MEG series code (Three letter code, ex: AAA)

4 to 7 four asterisks (****)

Card No. 2 to ...N

The format of these cards is defined in the MEG coding guide (2). A listing of input control and data cards is given in Appendix A.

OUTPUT DESCRIPTION AND LISTING OF OUTPUT

The output computer listing is the master file copy of sorted drill hole data. When a fatal error occurs, the output listing is a copy of the original unsorted drill hole data. A typical example of MEG0401 output is shown in Appendix B.

DECK SET UP

Another set up of program MEG0401 run deck may be arranged as follows:

DISK FILE

1. HO401,CM67000,T100,10400,P2.
2. ACCOUNT,XXXXX.
3. ATTACH,MEG0401,MEG0401,ID=MEGPB,PW=XXX,MR=1.
- *4. REQUEST,DSKFTN,*PF.
5. LDSET,PRESET=ZERØ.
6. MEG0401.
- *7. PURGE,X,PFN**, ID=www,PW=ZZZ,XXX.
8. RETURN,X.
- *9. CATALOG,DSKFTN,PFN,ID=www,TK=ZZZ,CN=XXX,RP=5.
- *10. EXIT,S.
- *11. CATALOG,DSKFTN,PFN,ID=www,TK=ZZZ,CN=XXX,RP=5.
7/8/9

INPUT DATA CARDS

7/8/9
6/7/8/9

- (*4) To request storage on disk file.
 (*7) To purge the previous sorted master file on disk.
 (*9, *11) To catalogue the sorted master file on disk.
 (*10) When a disk file (card #7) is not catalogued the program would execute the control cards following the EXIT,S. card.
 **PFN = permanent file name.

OPERATING INSTRUCTIONS

MEGO401 is written in COBOL Version 4. The program is actually constructed to be run on a CDC Cyber 74 Computer.

TIMING

The program requires 50 seconds of central processor (CP) time and within 200 seconds of input/output (I/O) time. The program also needs 67K octal words of internal core memory.

LISTING OF MAIN PROGRAM

A listing of the program is shown in Appendix C.

REFERENCES

- (1) Boyle, R. "Computer Programs for Processing Coded Data"; CANMET, Energy, Mines and Resources Canada; Lab Report ERP/MRL 78-56(OP); 1978.
- (2) Sabourin, R. "Guide for Coding Drill-Hole Data from Uranium Deposits Version 2."; CANMET, Energy, Mines and Resources Canada; Lab Report ERP/MRL 78-42(TR); 1978.
- (3) Control Data Corporation, NOS/BE 1 Reference Manual
Control Data Corporation.

APPENDIX A

LISTING OF INPUT CONTROL CARDS AND
INPUT DATA CARDS

00001	IDENTIFICATION DIVISION.	GEM0401	2
00002	PROGRAM-ID. MEG0401.	GEM0401	3
00003	AUTHOR. J FOLTA.	GEM0401	4
00004	REMARKS. FIRST PROGRAM OF JOB MEG0400	GEM0401	5
00005	DOES INITIAL EDIT OF INPUT CARDS	GEM0401	6
00006	SORTS INPUT IN ASCENDING ORDER BY MEG DRILL-HOLE	GEM0401	7
00007	NUMBER, LINE NUMBER, INTERCALATION, SHEET TYPE AND	GEM0401	8
00008	ACTIVITY CODE	GEM0401	9
00009	SORTED INPUT WRITTEN TO FILE TRAN-FILE (DISK01) AND	GEM0401	10
00010	PASSED TO PROGRAM MEG0402 OF THE SAME JOB.	GEM0401	11
00011	ENVIRONMENT DIVISION.	GEM0401	12
00012	CONFIGURATION SECTION.	GEM0401	13
00013	SOURCE-COMPUTER. CYBER 74.	GEM0401	14
00014	OBJECT-COMPUTER. CYBER 74.	GEM0401	15
00015	SPECIAL-NAMES. CONSOLE IS CONSOLE.	GEM0401	16
00016	INPUT-OUTPUT SECTION.	GEM0401	17
00017	FILE-CONTROL.	GEM0401	18
00018	SELECT DTPT-FILE ASSIGN TO DSKFTN-FZ.	GEM0401	19
00019	SELECT CARD-FILE ASSIGN TO INPUT.	GEM0401	20
00020	SELECT PRNT-FILE ASSIGN TO OUTPUT.	GEM0401	21
00021	SELECT TRAN-FILE ASSIGN TO DISK01.	GEM0401	22
00022	SELECT SORT-FILE ASSIGN TO SRTDSK.	GEM0401	23
00023	DATA DIVISION.	GEM0401	24
00024	FILE SECTION.	GEM0401	25
00025	FD CARD-FILE	GEM0401	26
00026	LABEL RECORDS ARE OMITTED.	GEM0401	27
00027	01 CARD-RECORD.	GEM0401	28
00028	02 CR-PARAMETERS.	GEM0401	29
00029	03 CRP-IDENT.	GEM0401	30
00030	05 CRP-SERIES PIC XXX.	GEM0401	31
00031	05 CRP-STARS PIC XXXX.	GEM0401	32
00032	03 FILLER PIC X(73).	GEM0401	33
00033	02 CR-DATA REDEFINES CR-PARAMETERS.	GEM0401	34
00034	03 CRD-UDN.	GEM0401	35
00035	05 CRD-SERIES PIC XXX.	GEM0401	36
00036	05 CRD-SEQUENC PIC 9999.	GEM0401	37
00037	03 CRD-SHEET-TYPE PIC X.	GEM0401	38
00038	03 CRD-LINE-NR PIC 999.	GEM0401	39
00039	03 CRD-LINE-NR-X REDEFINES CRD-LINE-NR-PIC XXX.	GEM0401	40
00040	03 CRD-INTER-CAL PIC 9.	GEM0401	41
00041	03 CRD-INTER-CAL-X REDEFINES CRD-INTER-CAL PIC X.	GEM0401	42
00042	03 FILLER PIC X(67).	GEM0401	43
00043	03 CRD-ACT-CODE PIC X.	GEM0401	44
00044	FD PRNT-FILE	GEM0401	45
00045	LABEL RECORDS ARE OMITTED.	GEM0401	46
00046	01 PRNT-RECORD.	GEM0401	47
00047	03 PRNT-CC PIC X.	GEM0401	48
00048	03 PRNT-DATA PIC X(132).	GEM0401	49
00049	FD TRAN-FILE	GEM0401	50
00050	LABEL RECORDS ARE OMITTED.	GEM0401	51
00051	01 TRAN-RECORD.	GEM0401	52
00052	03 TR-CARD-NR PIC 9(5).	GEM0401	53
00053	03 FILLER PIC X(5).	GEM0401	54
00054	03 TR-DATA PIC X(80).	GEM0401	55
00055	SD SORT-FILE.	GEM0401	56
00056	01 SORT-RECORD.	GEM0401	57

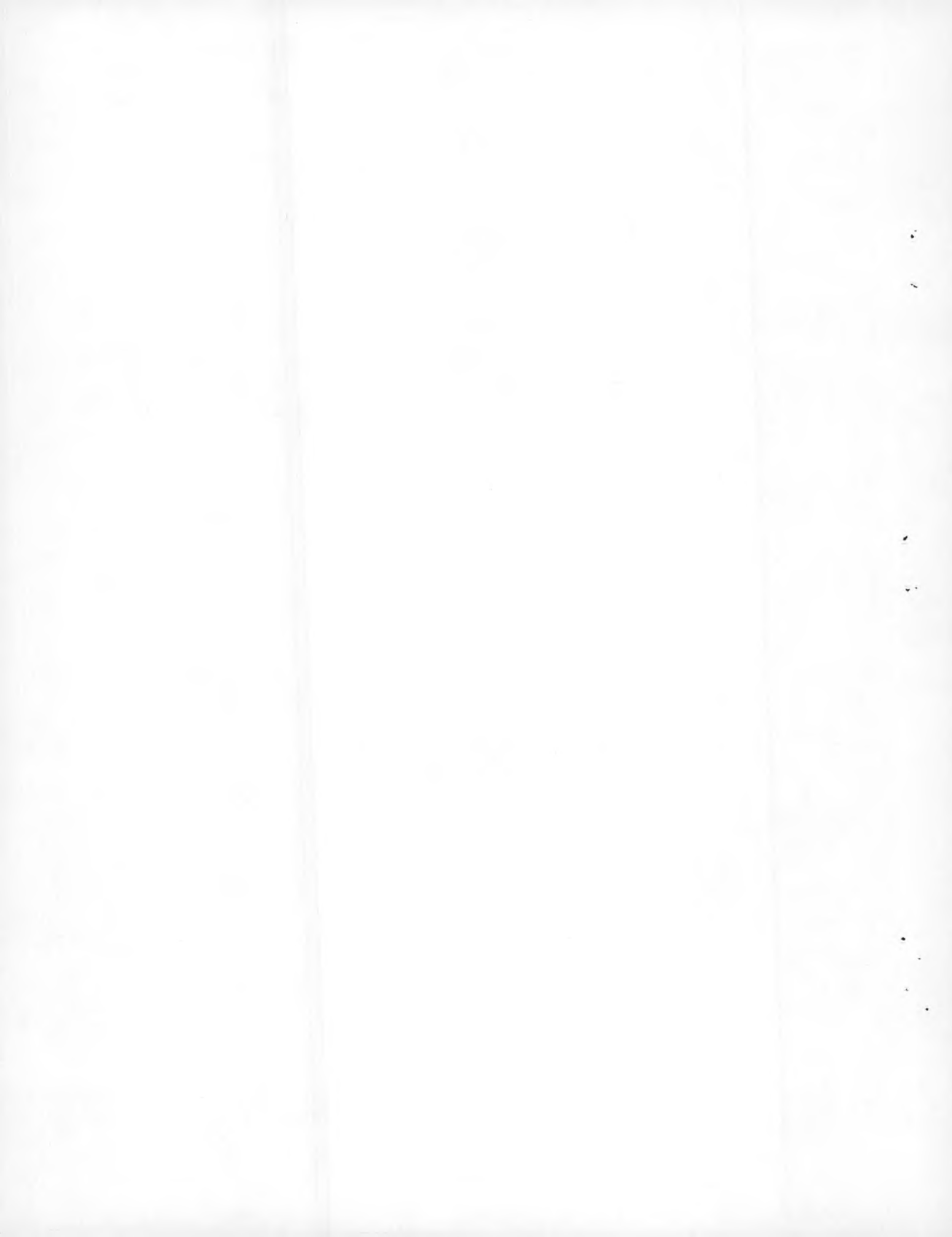
00058	03	SR-UDN.				GEM0401	59
00059		05 SR-SERIES	PIC XXX.			GEM0401	60
00060		05 SR-SEQUENC	PIC XXXX.			GEM0401	61
00061	03	SR-SHEET-TYPE	PIC X.			GEM0401	62
00062	03	SR-LINE-NR	PIC XXX.			GEM0401	63
00063	03	SR-INTER-CAL	PIC X.			GEM0401	64
00064	03	FILLER	PIC X(67).			GEM0401	65
00065	03	SR-ACT-CODE	PIC X.			GEM0401	66
00066	FD	OTPT-FILE				GEM0401	67
00067		LABEL RECORDS ARE OMITTED.				GEM0401	68
00068	01	OTPT-RECORD	PIC X(80).			GEM0401	69
00069		WORKING-STORAGE SECTION.				GEM0401	70
00070	77	FATAL-ERROR-FLAG	PIC X	VALUE "G".		GEM0401	71
00071		88 FATAL-ERROR		VALUE "F".		GEM0401	72
00072	77	CARD-FILE-FLAG	PIC X	VALUE "N".		GEM0401	73
00073		88 END-CARD-FILE		VALUE "E".		GEM0401	74
00074	77	TEMP-FILE-FLAG	PIC X	VALUE "N".		GEM0401	75
00075		88 END-TEMP-FILE		VALUE "E".		GEM0401	76
00076	77	LINE-NR-STATUS	PIC X	VALUE "G".		GEM0401	77
00077		88 LINE-NR-BAD		VALUE "F".		GEM0401	78
00078	77	CARDS-READ	COMP-1 PIC 9(10)	VALUE 0.		GEM0401	79
00079	77	GOOD-CARDS	COMP-1 PIC 9(10)	VALUE 0.		GEM0401	80
00080	77	BAD-CARDS	COMP-1 PIC 9(10)	VALUE 0.		GEM0401	81
00081	77	CARD-NR	COMP-1 PIC 9(10)	VALUE 0.		GEM0401	82
00082	77	PAGE-NR	COMP-1 PIC 9(5)	VALUE 0.		GEM0401	83
00083	77	LINE-NR	COMP-1 PIC 9(5)	VALUE 66.		GEM0401	84
00084	77	ERP-SUB	COMP-1 PIC 9(10)	VALUE 0.		GEM0401	85
00085	77	SUB1	COMP-1 PIC 9(10)	VALUE 0.		GEM0401	86
00086	77	HOLD-SERIES	PIC XXX	VALUE " ".		GEM0401	87
00087	01	HDR-1-RECORD.				GEM0401	88
00088		03 FILLER	PIC X	VALUE "1".		GEM0401	89
00089		03 FILLER	PIC X(24)	VALUE "R0401 MEG0401 INITIAL".		GEM0401	90
00090		03 FILLER	PIC X(24)	VALUE "EDIT-AND-SORT-OF-INPUT".		GEM0401	91
00091		03 FILLER	PIC X(21)	VALUE "DATA FOR MINE SERIES".		GEM0401	92
00092		03 HDR-1-SERIES	PIC XXX	VALUE " ".		GEM0401	93
00093		03 FILLER	PIC X(24)	VALUE SPACE.		GEM0401	94
00094		03 FILLER	PIC X(9)	VALUE "RUN DATE".		GEM0401	95
00095		03 HDR-1-RUN-DATE	PIC X(10)	VALUE SPACE.		GEM0401	96
00096		03 FILLER	PIC X(12)	VALUE "PAGE".		GEM0401	97
00097		03 HDR-1-PAGE	PIC ZZZZ9.			GEM0401	98
00098		01 HDR-2-RECORD.				GEM0401	99
00099		03 FILLER	PIC X	VALUE "0".		GEM0401	100
00100		03 FILLER	PIC X(45)	VALUE SPACE.		GEM0401	101
00101		03 FILLER	PIC X(9)	VALUE "DATA CARD".		GEM0401	102
00102	01	HDR-3-RECORD.				GEM0401	103
00103		03 FILLER	PIC X(30)	VALUE "CARD NO. 1234567890123456789".		GEM0401	104
00104		03 FILLER	PIC X(30)	VALUE "012345678901234567890123456789".		GEM0401	105
00105		03 FILLER	PIC X(30)	VALUE "012345678901234567890123456789".		GEM0401	106
00106		03 FILLER	PIC X(30)	VALUE "0 ERROR MESSAGE".		GEM0401	107
00107	01	HDR-4-RECORD.				GEM0401	108
00108		03 FILLER	PIC X	VALUE "0".		GEM0401	109
00109		03 FILLER	PIC X(62)	VALUE SPACE.		GEM0401	110
00110		03 FILLER	PIC X(7)	VALUE "SUMMARY".		GEM0401	111
00111	01	STAR-RECORD.				GEM0401	112
00112		02 STAR-P-RECORD.				GEM0401	113
00113		03 STAR-P-SERIES	PIC XXX			GEM0401	114

00115	02	STAR-I-RECORD REDEFINES STAR-P-RECORD.		GEM0401	116
00116	03	STAR-I-SERIES PIC XXX.		GEM0401	117
00117	03	STAR-I-SEQUENC PIC X(4).		GEM0401	118
00118	03	STAR-I-SHEET PIC X.		GEM0401	119
00119	03	STAR-I-LINE PIC XXX.		GEM0401	120
00120	03	STAR-I-INTER PIC X.		GEM0401	121
00121	03	FILLER PIC X(67).		GEM0401	122
00122	03	STAR-I-ACT PIC X.		GEM0401	123
00123	01	ERR-MESSAGES.		GEM0401	124
00124	03	ERR-MSG OCCURS 6 TIMES PIC X(40).		GEM0401	125
00125	01	ERR-LINE.		GEM0401	126
00126	03	ERR-LINE-CC PIC X VALUE " ".		GEM0401	127
00127	03	ERR-LINE-NR PIC Z(6).		GEM0401	128
00128	03	FILLER PIC X(4) VALUE SPACE.		GEM0401	129
00129	03	ERR-LINE-DATA PIC X(80) VALUE SPACE.		GEM0401	130
00130	03	FILLER PIC XX VALUE SPACE.		GEM0401	131
00131	03	ERR-LINE-MSG PIC X(40) VALUE SPACE.		GEM0401	132
00132	01	SUMM-RECORD.		GEM0401	133
00133	03	SUMM-CC PIC X VALUE "0".		GEM0401	134
00134	03	SUMM-TITLE PIC X(16) VALUE SPACE.		GEM0401	135
00135	03	SUMM-COUNT PIC Z(5)9.		GEM0401	136

00136	PROCEDURE DIVISION.	GEM0401	137
00137	MAIN-PROCEDURE SECTION.	GEM0401	138
00138	MP0-START.	GEM0401	139
00139	PERFORM MP01-INITIALIZE.	GEM0401	140
00140	IF NOT FATAL-ERROR	GEM0401	141
00141	PERFORM MP02-READ-INPUT-UNTIL-END-CARD-FILE	GEM0401	142
00142	IF GOOD-CARDS GR 0	GEM0401	143
00143	PERFORM MP03-SORT-DATA	GEM0401	144
00144	PERFORM MPXX-OUTPUT-DATA-UNTIL-END-TEMP-FILE	GEM0401	145
00145	ELSE	GEM0401	146
00146	MOVE SPACE TO CARD-RECORD	GEM0401	147
00147	MOVE "NO VALID INPUT" TO ERR-MSG (1)	GEM0401	148
00148	PERFORM MPOX1-PRINT-ERROR	GEM0401	149
00149	MOVE "F" TO FATAL-ERROR-FLAG.	GEM0401	150
00150	PERFORM MP04-SUMMARIZE.	GEM0401	151
00151	IF FATAL-ERROR	GEM0401	152
00152	DISPLAY "PASS I - ABORT*****" UPON CONSOLE	GEM0401	153
00153	CALL JFTERM.	GEM0401	154
00154	STOP RUN.	GEM0401	155
00155	MP01-INITIALIZE.	GEM0401	156
00156	OPEN INPUT CARD-FILE.	GEM0401	157
00157	OPEN OUTPUT PRNT-FILE.	GEM0401	158
00158	MOVE SPACE TO ERR-LINE ERR-MESSAGES STAR-RECORD.	GEM0401	159
00159	MOVE TODAYS-DATE TO HDR-1-RUN-DATE.	GEM0401	160
00160	PERFORM MP011-READ-PARAMETERS.	GEM0401	161
00161	IF FATAL-ERROR	GEM0401	162
00162	PERFORM MPOX1-PRINT-ERROR	GEM0401	163
00163	CLOSE CARD-FILE	GEM0401	164
00164	ELSE	GEM0401	165
00165	OPEN OUTPUT TRAN-FILE	GEM0401	166
00166	MOVE SPACE TO TRAN-RECORD	GEM0401	167
00167	MOVE ZERO TO TR-CARD-NR	GEM0401	168
00168	MOVE CR-PARAMETERS TO TR-DATA	GEM0401	169
00169	MOVE CRP-SERIES TO HDR-1-SERIES HOLD-SERIES	GEM0401	170
00170	WRITE TRAN-RECORD.	GEM0401	171
00171	MP011-READ-PARAMETERS.	GEM0401	172
00172	READ CARD-FILE AT END	GEM0401	173
00173	MOVE SPACE TO CARD-RECORD	GEM0401	174
00174	MOVE "F" TO FATAL-ERROR-FLAG	GEM0401	175
00175	MOVE "E" TO CARD-FILE-FLAG	GEM0401	176
00176	MOVE "NO PARAMETER CARD" TO ERR-MSG (1).	GEM0401	177
00177	IF NOT FATAL-ERROR	GEM0401	178
00178	IF CRP-STARTS NO "*****"	GEM0401	179
00179	MOVE "F" TO FATAL-ERROR-FLAG	GEM0401	180
00180	MOVE "NO PARAMETER CARD" TO ERR-MSG (1)	GEM0401	181
00181	ELSE	GEM0401	182
00182	IF CRP-SERIES NOT ALPHABETIC	GEM0401	183
00183	MOVE "F" TO FATAL-ERROR-FLAG	GEM0401	184
00184	MOVE "INVALID PARAMETER SERIES" TO ERR-MSG (1)	GEM0401	185
00185	MOVE "***" TO STAR-P-SERIES.	GEM0401	186
00186	MP02-READ-INPUT.	GEM0401	187
00187	READ CARD-FILE AT END	GEM0401	188
00188	MOVE "E" TO CARD-FILE-FLAG	GEM0401	189
00189	CLOSE CARD-FILE	GEM0401	190
00190	TRAN-FILE.	GEM0401	191
00191	IF NOT END-CARD-FILE	GEM0401	192

00193	MOVE 0 TO ERR-SUB	GEM0401	194
00194	PERFORM MP021-EDIT-CARD	GEM0401	195
00195	IF ERR-SUB GR 0	GEM0401	196
00196	ADD 1 TO BAD-CARDS	GEM0401	197
00197	PERFORM MPOX1-PRINT-ERROR	GEM0401	198
00198	ELSE	GEM0401	199
00199	ADD 1 TO GOOD-CARDS	GEM0401	200
00200	MOVE SPACE TO TRAN-RECORD	GEM0401	201
00201	MOVE CARD-NR TO TR-CARD-NR	GEM0401	202
00202	MOVE CR-DATA TO TR-DATA	GEM0401	203
00203	WRITE TRAN-RECORD.	GEM0401	204
00204	MP021-EDIT-CARD.	GEM0401	205
00205	IF CRD-SERIES NO HOLD-SERIES	GEM0401	206
00206	ADD 1 TO ERR-SUB	GEM0401	207
00207	MOVE "INVALID-SERIES" TO ERR-MSG (ERR-SUB)	GEM0401	208
00208	MOVE "****" TO STAR-I-SERIES.	GEM0401	209
00209	EXAMINE CRD-SEQUENC REPLACING LEADING " " BY ZERO.	GEM0401	210
00210	IF CRD-SEQUENC NOT NUMERIC	GEM0401	211
00211	ADD 1 TO ERR-SUB	GEM0401	212
00212	MOVE "INVALID SEQUENCE NR." TO ERR-MSG (ERR-SUB)	GEM0401	213
00213	MOVE ALL "*" TO STAR-I-SEQUENC.	GEM0401	214
00214	IF CRD-SHEET-TYPE NO " " AND CRD-SHEET-TYPE NO "A" AND	GEM0401	215
00215	CRD-SHEET-TYPE NO "B"	GEM0401	216
00216	ADD 1 TO ERR-SUB	GEM0401	217
00217	MOVE "INVALID SHEET TYPE" TO ERR-MSG (ERR-SUB)	GEM0401	218
00218	MOVE "*" TO STAR-I-SHEET	GEM0401	219
00219	ELSE	GEM0401	220
00220	MOVE "G" TO LINE-NR-STATUS	GEM0401	221
00221	PERFORM MP0211-CHECK-LINE	GEM0401	222
00222	IF LINE-NR-BAD	GEM0401	223
00223	ADD 1 TO ERR-SUB	GEM0401	224
00224	MOVE "INVALID LINE NR." TO ERR-MSG (ERR-SUB)	GEM0401	225
00225	MOVE "****" TO STAR-I-LINE.	GEM0401	226
00226	IF CRD-INTER-CAL NOT NUMERIC	GEM0401	227
00227	IF CRD-INTER-CAL-X NO " "	GEM0401	228
00228	ADD 1 TO ERR-SUB	GEM0401	229
00229	MOVE "INVALID INTERCALATION" TO ERR-MSG (ERR-SUB)	GEM0401	230
00230	MOVE "*" TO STAR-I-INTER.	GEM0401	231
00231	IF CRD-ACT-CODE NO " " AND CRD-ACT-CODE NO "D" AND	GEM0401	232
00232	CRD-ACT-CODE NO "I" AND CRD-ACT-CODE NO "R"	GEM0401	233
00233	ADD 1 TO ERR-SUB	GEM0401	234
00234	MOVE "INVALID ACTIVITY CODE" TO ERR-MSG (ERR-SUB)	GEM0401	235
00235	MOVE "*" TO STAR-I-ACT.	GEM0401	236
00236	MP0211-CHECK-LINE.	GEM0401	237
00237	IF CRD-SHEET-TYPE EQ " "	GEM0401	238
00238	IF CRD-LINE-NR-X NUMERIC	GEM0401	239
00239	MOVE "F" TO LINE-NR-STATUS	GEM0401	240
00240	ELSE	GEM0401	241
00241	MOVE " " TO CRD-SHEET-TYPE	GEM0401	242
00242	ELSE	GEM0401	243
00243	EXAMINE CRD-LINE-NR REPLACING LEADING SPACES BY ZERO	GEM0401	244
00244	IF (CRD-LINE-NR NOT NUMERIC OR CRD-LINE-NR GR 200 OR	GEM0401	245
00245	(CRD-LINE-NR EQ 0 AND (CRD-INTER-CAL-X EQ " " OR "0"))	GEM0401	246
00246	OR (CRD-LINE-NR EQ 200 AND (CRD-INTER-CAL-X NO " " AND	GEM0401	247
00247	CRD-INTER-CAL-X NO "0"))	GEM0401	248
00248	MOVE "H" TO LINE-NR-STATUS	GEM0401	249

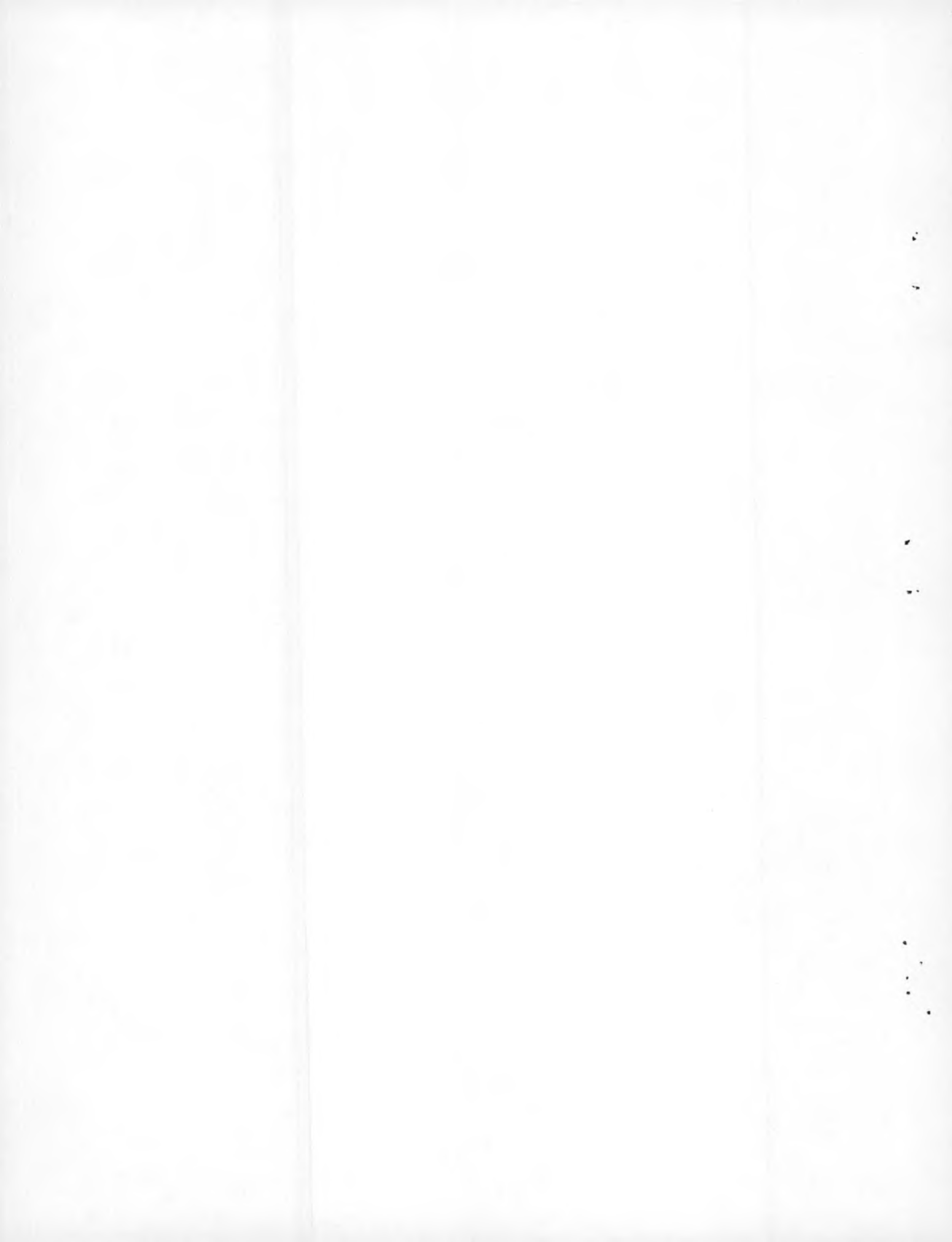
00250	SORT SORT-FILE ON ASCENDING KEY	GEM0401	251
00251	SR-SEQUENC	GEM0401	252
00252	SR-LINE-NR	GEM0401	253
00253	SR-INTER-CAL	GEM0401	254
00254	SR-SHEET-TYPE	GEM0401	255
00255	SR-ACT-CODE	GEM0401	256
00256	USING TRAN-FILE	GEM0401	257
00257	GIVING TRAN-FILE.	GEM0401	258
00258	OPEN INPUT TRAN-FILE OUTPUT OTPT-FILE.	GEM0401	259
00259	MOVE "1 LISTING OF SORTED DATA" TO PRNT-RECORD.	GEM0401	260
00260	WRITE PRNT-RECORD.	GEM0401	261
00261	MOVE "0" TO PRNT-RECORD.	GEM0401	262
00262	WRITE PRNT-RECORD.	GEM0401	263
00263	MOVE SPACE TO PRNT-RECORD.	GEM0401	264
00264	MP04-SUMMARIZE.	GEM0401	265
00265	ADD 1 TO PAGE-NR.	GEM0401	266
00266	MOVE PAGE-NR TO HDR-1-PAGE.	GEM0401	267
00267	WRITE PRNT-RECORD FROM HDR-1-RECORD.	GEM0401	268
00268	WRITE PRNT-RECORD FROM HDR-4-RECORD.	GEM0401	269
00269	MOVE SPACE TO SUMM-RECORD.	GEM0401	270
00270	MOVE "0" TO SUMM-CC.	GEM0401	271
00271	MOVE "CARDS READ" TO SUMM-TITLE.	GEM0401	272
00272	MOVE CARD-NR TO SUMM-COUNT.	GEM0401	273
00273	WRITE PRNT-RECORD FROM SUMM-RECORD.	GEM0401	274
00274	MOVE "CARDS ACCEPTED" TO SUMM-TITLE.	GEM0401	275
00275	MOVE GOOD-CARDS TO SUMM-COUNT.	GEM0401	276
00276	WRITE PRNT-RECORD FROM SUMM-RECORD.	GEM0401	277
00277	MOVE "CARDS REJECTED" TO SUMM-TITLE.	GEM0401	278
00278	MOVE BAD-CARDS TO SUMM-COUNT.	GEM0401	279
00279	WRITE PRNT-RECORD FROM SUMM-RECORD.	GEM0401	280
00280	CLOSE PRNT-FILE.	GEM0401	281
00281	MPOX1-PRINT-ERROR.	GEM0401	282
00282	IF LINE-NR GR 57	GEM0401	283
00283	PERFORM MPOX11-PRINT-HEADING.	GEM0401	284
00284	MOVE SPACE TO ERR-LINE.	GEM0401	285
00285	MOVE "0" TO ERR-LINE-CC.	GEM0401	286
00286	MOVE CARD-NR TO ERR-LINE-NR.	GEM0401	287
00287	MOVE CARD-RECORD TO ERR-LINE-DATA.	GEM0401	288
00288	MOVE ERR-MSG (1) TO ERR-LINE-MSG.	GEM0401	289
00289	WRITE PRNT-RECORD FROM ERR-LINE.	GEM0401	290
00290	ADD 2 TO LINE-NR.	GEM0401	291
00291	MOVE SPACE TO ERR-LINE.	GEM0401	292
00292	MOVE STAR-RECORD TO ERR-LINE-DATA.	GEM0401	293
00293	IF ERR-SUB GR 1	GEM0401	294
00294	MOVE ERR-MSG (2) TO ERR-LINE-MSG.	GEM0401	295
00295	WRITE PRNT-RECORD FROM ERR-LINE.	GEM0401	296
00296	ADD 1 TO LINE-NR.	GEM0401	297
00297	IF ERR-SUB GR 2	GEM0401	298
00298	MOVE 2 TO SUB1	GEM0401	299
00299	PERFORM MPOX12-LIST-MESSAGES UNTIL SUB1 GO ERR-SUB.	GEM0401	300
00300	MOVE 0 TO ERR-SUB.	GEM0401	301
00301	MOVE SPACE TO ERR-LINE ERR-MESSAGES STAR-RECORD.	GEM0401	302
00302	MPOX11-PRINT-HEADING.	GEM0401	303
00303	ADD 1 TO PAGE-NR.	GEM0401	304
00304	MOVE PAGE-NR TO HDR-1-PAGE.	GEM0401	305
00305	WRITE PRNT-RECORD FROM HDR-1-RECORD.	GEM0401	306



00307	WRITE PRNT-RECORD FROM HDR-3-RECORD.	GEM0401	308
00308	MOVE 4 TO LINE-NR.	GEM0401	309
00309	MP0X12-LIST-MESSAGES.	GEM0401	310
00310	ADD 1 TO SUB1.	GEM0401	311
00311	IF LINE-NR GR 59	GEM0401	312
00312	PERFORM MP0X11-PRINT-HEADING.	GEM0401	313
00313	MOVE SPACE TO ERR-LINE.	GEM0401	314
00314	MOVE ERR-MSG (SUB1) TO ERR-LINE-MSG.	GEM0401	315
00315	WRITE PRNT-RECORD FROM ERR-LINE.	GEM0401	316
00316	ADD 1 TO LINE-NR.	GEM0401	317
00317	MPXX-OUTPUT-DATA.	GEM0401	318
00318	READ TRAN-FILE AT END	GEM0401	319
00319	MOVE "E" TO TEMP-FILE-FLAG	GEM0401	320
00320	CLOSE TRAN-FILE OTPT-FILE.	GEM0401	321
00321	IF NOT END-TEMP-FILE	GEM0401	322
00322	MOVE TR-DATA TO OTPT-RECORD	GEM0401	323
00323	MOVE OTPT-RECORD TO PRNT-DATA	GEM0401	324
00324	WRITE OTPT-RECORD	GEM0401	325
00325	WRITE PRNT-RECORD.	GEM0401	326

MEG0401 LENGTH IS 002145

060000B-SCM-USED



APPENDIX B

LISTING OF OUTPUT OF SORTED DATA

ADB****

ADB0087	1	CR78112	112	05250913	11	115.0	14
ADB0087	2	C 507985	533926	1307.3			
ADB0087	3						
ADB0087A001			0	0.0	32.5-90		00
ADB0087B001			0			0	0 0 0
ADB0087A002	01		9	32.5	5.5-90	OV	-1
ADB0087B002			U	0.025		V 0.00V	0.00V0.000V0.000
ADB0087A003	02		9	39.0	6.0-90	OV	-1
ADB0087B003			U	0.12		V 0.01V	0.00V 0.02V0.000
ADB0087A004	03		9	45.0	7.0-90	OV	-1
ADB0087B004			U	0.005		V 0.01V	0.00V0.000V0.000
ADB0087A005	04		9	52.0	8.0-90	OV	-1
ADB0087B005			U	0.000		V 0.01V	0.00V0.000V0.000
ADB0087A006	05		9	60.0	5.0-90	S	-1
ADB0087B006			U	0.005		V 0.70V	0.02V0.000V0.000
ADB0087A007	06		9	65.0	5.0-90	CLN GP	-1
ADB0087B007			U	0.000		V21.50V	0.00V0.000V0.000
ADB0087A008	07		9	70.0	5.0-90	S	-1
ADB0087B008			U	0.010		V 0.33V	0.00V0.000V0.000
ADB0087A009	08		9	75.0	5.0-90	S	-1
ADB0087B009			U	0.000		V 0.07V	0.00V0.000V0.000
ADB0087A010			9	80.0	15.0-90	S C	-1
ADB0087B010			0			0	0 0 0
ADB0087A011	12		9	95.0	5.0-90	S	-1
ADB0087B011			U	0.000		V 0.02V	0.00V0.000V0.000
ADB0087A012	13		9	100.0	5.0-90	CL	-1
ADB0087B012			U	0.010		V 0.05V	0.00V0.000V0.000
ADB0087A013	14		9	105.0	5.0-90	MA A	-1
ADB0087B013			U	0.005		V 0.09V	0.00V0.000V0.000
ADB0087A014	15		9	110.0	5.0-90	MA A	-1
ADB0087B014			U	0.000		V 0.07V	0.00V0.000V0.000

SUMMARY

CARDS READ 31

CARDS ACCEPTED 31

CARDS REJECTED 0

1 12
11
2 10
9
3 8
7
4 6
5

APPENDIX C

LISTING OF PROGRAM MEG0401

00001	IDENTIFICATION DIVISION.	UG0401	2
00002	PROGRAM-ID. UG0401.	UG0401	3
00003	AUTHOR. J FOLTA.	UG0401	4
00004	REMARKS. FIRST PROGRAM OF JOB UG0400	UG0401	5
00005	DOES INITIAL EDIT OF INPUT CARDS	UG0401	6
00005	SORTS INPUT IN ASCENDING ORDER BY URAS DRILL-HOLE	UG0401	7
00007	NUMBER, LINE NUMBER, INTERCALATION, SHEET TYPE AND	UG0401	8
00008	ACTIVITY CODE	UG0401	9
00009	SORTED INPUT WRITTEN TO FILE TRAN-FILE (DISK01) AND	UG0401	10
00010	PASSED TO PROGRAM UG0402 OF THE SAME JOB.	UG0401	11
00011	ENVIRONMENT DIVISION.	UG0401	12
00012	CONFIGURATION SECTION.	UG0401	13
00013	SOURCE-COMPUTER. CYBER 74.	UG0401	14
00014	OBJECT-COMPUTER. CYBER 74.	UG0401	15
00015	SPECIAL-NAMES. CONSOLE IS CONSOLE.	UG0401	16
00016	INPUT-OUTPUT SECTION.	UG0401	17
00017	FILE-CONTROL.	UG0401	18
00018	SELECT DTPT-FILE ASSIGN TO DSKFTN-FZ.	UG0401	19
00019	SELECT CARD-FILE ASSIGN TO INPUT.	UG0401	20
00020	SELECT PRNT-FILE ASSIGN TO OUTPUT.	UG0401	21
00021	SELECT TRAN-FILE ASSIGN TO DISK01.	UG0401	22
00022	SELECT SORT-FILE ASSIGN TO SRTDISK.	UG0401	23
00023	DATA DIVISION.	UG0401	24
00024	FILE SECTION.	UG0401	25
00025	FD CARD-FILE	UG0401	26
00026	LABEL RECORDS ARE OMITTED.	UG0401	27
00027	01 CARD-RECORD.	UG0401	28
00028	02 CR-PARAMETERS.	UG0401	29
00029	03 CRP-IDENT.	UG0401	30
00030	05 CRP-SERIES PIC XXX.	UG0401	31
00031	05 CRP-STARS PIC XXXX.	UG0401	32
00032	03 FILLER PIC X(73).	UG0401	33
00033	02 CR-DATA REDEFINES CR-PARAMETERS.	UG0401	34
00034	03 CRD-UDN.	UG0401	35
00035	05 CRD-SERIES PIC XXX.	UG0401	36
00036	05 CRD-SEQUENC PIC 9999.	UG0401	37
00037	03 CRD-SHEET-TYPE PIC X.	UG0401	38
00038	03 CRD-LINE-NR PIC 999.	UG0401	39
00039	03 CRD-LINE-NR-X REDEFINES CRD-LINE-NR PIC XXX.	UG0401	40
00040	03 CRD-INTER-CAL PIC 9.	UG0401	41
00041	03 CRD-INTER-CAL-X REDEFINES CRD-INTER-CAL PIC X.	UG0401	42
00042	03 FILLER PIC X(67).	UG0401	43
00043	03 CRD-ACT-CODE PIC X.	UG0401	44
00044	FD PRNT-FILE	UG0401	45
00045	LABEL RECORDS ARE OMITTED.	UG0401	46
00046	01 PRNT-RECORD.	UG0401	47
00047	03 PRNT-CC PIC X.	UG0401	48
00048	03 PRNT-DATA PIC X(132).	UG0401	49
00049	FD TRAN-FILE	UG0401	50
00050	LABEL RECORDS ARE OMITTED.	UG0401	51
00051	01 TRAN-RECORD.	UG0401	52
00052	03 TR-CARD-NR PIC 9(5).	UG0401	53
00053	03 FILLER PIC X(5).	UG0401	54
00054	03 TR-DATA PIC X(80).	UG0401	55
00055	SD SORT-FILE.	UG0401	56
00056	01 SORT-RECORD.	UG0401	57
00057	03 FILLER PIC X(10).	UG0401	58

00058	03	SR-UDN.				UG0401	59
00059	05	SR-SERIES	PIC XXX.			UG0401	60
00060	05	SR-SEQUENC	PIC XXXX.			UG0401	61
00061	03	SR-SHEET-TYPE	PIC X.			UG0401	62
00062	03	SR-LINE-NR	PIC XXX.			UG0401	63
00063	03	SR-INTER-CAL	PIC X.			UG0401	64
00064	03	FILLER	PIC X(67).			UG0401	65
00065	03	SR-ACT-CODE	PIC X.			UG0401	66
00066	FD	OTPT-FILE				UG0401	67
00067		LABEL RECORDS ARE OMITTED.				UG0401	68
00068	01	OTPT-RECORD	PIC X(80).			UG0401	69
00069		WORKING-STORAGE SECTION.				UG0401	70
00070	77	FATAL-ERROR-FLAG	PIC X	VALUE "G".		UG0401	71
00071	88	FATAL-ERROR		VALUE "F".		UG0401	72
00072	77	CARD-FILE-FLAG	PIC X	VALUE "N".		UG0401	73
00073	88	END-CARD-FILE		VALUE "E".		UG0401	74
00074	77	TEMP-FILE-FLAG	PIC X	VALUE "N".		UG0401	75
00075	88	END-TEMP-FILE		VALUE "E".		UG0401	76
00076	77	LINE-NR-STATUS	PIC X	VALUE "G".		UG0401	77
00077	88	LINE-NR-9AD		VALUE "F".		UG0401	78
00078	77	CARDS-READ	COMP-1 PIC 9(10)	VALUE 0.		UG0401	79
00079	77	GOOD-CARDS	COMP-1 PIC 9(10)	VALUE 0.		UG0401	80
00080	77	BAD-CARDS	COMP-1 PIC 9(10)	VALUE 0.		UG0401	81
00081	77	CARD-NR	COMP-1 PIC 9(10)	VALUE 0.		UG0401	82
00082	77	PAGE-NR	COMP-1 PIC 9(5)	VALUE 0.		UG0401	83
00083	77	LINE-NR	COMP-1 PIC 9(5)	VALUE 66.		UG0401	84
00084	77	ERR-SUB	COMP-1 PIC 9(10)	VALUE 0.		UG0401	85
00085	77	SUB1	COMP-1 PIC 9(10)	VALUE 0.		UG0401	86
00086	77	HOLD-SERIES	PIC XXX	VALUE " ".		UG0401	87
00087	01	HDR-1-RECORD.				UG0401	88
00088	03	FILLER	PIC X	VALUE "1".		UG0401	89
00089	03	FILLER	PIC X(24)	VALUE "R0401 UG0401 INITIAL".		UG0401	90
00090	03	FILLER	PIC X(24)	VALUE " EDIT AND SORT OF INPUT ".		UG0401	91
00091	03	FILLER	PIC X(21)	VALUE "DATA FOR NINE SERIES ".		UG0401	92
00092	03	HDR-1-SERIES	PIC XXX	VALUE " ".		UG0401	93
00093	03	FILLER	PIC X(24)	VALUE SPACE.		UG0401	94
00094	03	FILLER	PIC X(9)	VALUE "RUN DATE ".		UG0401	95
00095	03	HDR-1-RUN-DATE	PIC X(10)	VALUE SPACE.		UG0401	96
00096	03	FILLER	PIC X(12)	VALUE " PAGE ".		UG0401	97
00097	03	HDR-1-PAGE	PIC ZZZZ9.			UG0401	98
00098	01	HDR-2-RECORD.				UG0401	99
00099	03	FILLER	PIC X	VALUE "0".		UG0401	100
00100	03	FILLER	PIC X(45)	VALUE SPACE.		UG0401	101
00101	03	FILLER	PIC X(9)	VALUE "DATA CARD".		UG0401	102
00102	01	HDR-3-RECORD.				UG0401	103
00103	03	FILLER	PIC X(30)	VALUE " CARD NO. 1234567890123456789".		UG0401	104
00104	03	FILLER	PIC X(30)	VALUE "012345678901234567890123456789".		UG0401	105
00105	03	FILLER	PIC X(30)	VALUE "012345678901234567890123456789".		UG0401	106
00106	03	FILLER	PIC X(30)	VALUE "0 ERROR MESSAGE ".		UG0401	107
00107	01	HDR-4-RECORD.				UG0401	108
00108	03	FILLER	PIC X	VALUE "0".		UG0401	109
00109	03	FILLER	PIC X(62)	VALUE SPACE.		UG0401	110
00110	03	FILLER	PIC X(7)	VALUE "SUMMARY".		UG0401	111
00111	01	STAR-RECORD.				UG0401	112
00112	02	STAR-P-RECORD.				UG0401	113
00113	03	STAR-P-SERIES	PIC XXX.			UG0401	114
00114	03	FILLER	PIC X(77).			UG0401	115

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00115	02	STAR-I-RECORD REDEFINES STAR-P-RECORD.			UG0401	116
00116	03	STAR-I-SERIES	PIC XXX.		UG0401	117
00117	03	STAR-I-SEQUENC	PIC X(4).		UG0401	118
00118	03	STAR-I-SHEET	PIC X.		UG0401	119
00119	03	STAR-I-LINE	PIC XXX.		UG0401	120
00120	03	STAR-I-INTER	PIC X.		UG0401	121
00121	03	FILLER	PIC X(67).		UG0401	122
00122	03	STAR-I-ACT	PIC X.		UG0401	123
00123	01	ERR-MESSAGES.			UG0401	124
00124	03	ERR-MSG OCCURS 6 TIMES	PIC X(40).		UG0401	125
00125	01	ERR-LINE.			UG0401	126
00126	03	ERR-LINE-CC	PIC X VALUE " ".		UG0401	127
00127	03	ERR-LINE-NR	PIC Z(6).		UG0401	128
00128	03	FILLER	PIC X(4) VALUE SPACE.		UG0401	129
00129	03	ERR-LINE-DATA	PIC X(80) VALUE SPACE.		UG0401	130
00130	03	FILLER	PIC XX VALUE SPACE.		UG0401	131
00131	03	ERR-LINE-MSG	PIC X(40) VALUE SPACE.		UG0401	132
00132	01	SUMM-RECORD.			UG0401	133
00133	03	SUMM-CC	PIC X VALUE "0".		UG0401	134
00134	03	SUMM-TITLE	PIC X(16) VALUE SPACE.		UG0401	135
00135	03	SUMM-COUNT	PIC Z(5)9.		UG0401	136

00136	PROCEDURE DIVISION.	UG0401	137
00137	MAIN-PROCEDURE SECTION.	UG0401	138
00138	MP0-START.	UG0401	139
00139	PERFORM MP01-INITIALIZE.	UG0401	140
00140	IF NOT FATAL-ERROR	UG0401	141
00141	PERFORM MP02-READ-INPUT UNTIL END-CARD-FILE	UG0401	142
00142	IF GOOD-CARDS GR 0	UG0401	143
00143	PERFORM MP03-SORT-DATA	UG0401	144
00144	PERFORM MPXX-OUTPUT-DATA UNTIL END-TEMP-FILE	UG0401	145
00145	ELSE	UG0401	146
00146	MOVE SPACE TO CARD-RECORD	UG0401	147
00147	MOVE "NO VALID INPUT" TO ERR-MSG (1)	UG0401	148
00148	PERFORM MPOX1-PRINT-ERROR	UG0401	149
00149	MOVE "F" TO FATAL-ERROR-FLAG.	UG0401	150
00150	PERFORM MP04-SUMMARIZE.	UG0401	151
00151	IF FATAL-ERROR	UG0401	152
00152	DISPLAY "PASS I - ABORT*****" UPON CONSOLE	UG0401	153
00153	CALL JFTERM.	UG0401	154
00154	STOP RUN.	UG0401	155
00155	MP01-INITIALIZE.	UG0401	156
00156	OPEN INPUT CARD-FILE.	UG0401	157
00157	OPEN OUTPUT PRNT-FILE.	UG0401	158
00158	MOVE SPACE TO ERR-LINE ERR-MESSAGES STAR-RECORD.	UG0401	159
00159	MOVE TODAYS-DATE TO HDR-1-RUN-DATE.	UG0401	160
00160	PERFORM MP011-READ-PARAMETERS.	UG0401	161
00161	IF FATAL-ERROR	UG0401	162
00162	PERFORM MPOX1-PRINT-ERROR	UG0401	163
00163	CLOSE CARD-FILE	UG0401	164
00164	ELSE	UG0401	165
00165	OPEN OUTPUT TRAN-FILE	UG0401	166
00166	MOVE SPACE TO TRAN-RECORD	UG0401	167
00167	MOVE ZERO TO TR-CARD-NR	UG0401	168
00168	MOVE CR-PARAMETERS TO TR-DATA	UG0401	169
00169	MOVE CRP-SERIES TO HDR-1-SERIES HOLD-SERIES	UG0401	170
00170	WRITE TRAN-RECORD.	UG0401	171
00171	MP011-READ-PARAMETERS.	UG0401	172
00172	READ CARD-FILE AT END	UG0401	173
00173	MOVE SPACE TO CARD-RECORD	UG0401	174
00174	MOVE "F" TO FATAL-ERROR-FLAG	UG0401	175
00175	MOVE "E" TO CARD-FILE-FLAG	UG0401	176
00176	MOVE "NO PARAMETER CARD" TO ERR-MSG (1).	UG0401	177
00177	IF NOT FATAL-ERROR	UG0401	178
00178	IF CRP-STARS NO "*****"	UG0401	179
00179	MOVE "F" TO FATAL-ERROR-FLAG	UG0401	180
00180	MOVE "NO PARAMETER CARD" TO ERR-MSG (1)	UG0401	181
00181	ELSE	UG0401	182
00182	IF CRP-SERIES NOT ALPHABETIC	UG0401	183
00183	MOVE "F" TO FATAL-ERROR-FLAG	UG0401	184
00184	MOVE "INVALID PARAMETER SERIES" TO ERR-MSG (1)	UG0401	185
00185	MOVE "****" TO STAR-P-SERIES.	UG0401	186
00186	MP02-READ-INPUT.	UG0401	187
00187	READ CARD-FILE AT END	UG0401	188
00188	MOVE "E" TO CARD-FILE-FLAG	UG0401	189
00189	CLOSE CARD-FILE	UG0401	190
00190	TRAN-FILE.	UG0401	191
00191	IF NOT END-CARD-FILE	UG0401	192
00192	ADD 1 TO CARD-NR	UG0401	193

00193	MOVE 0 TO ERR-SUB	UG0401	194
00194	PERFORM MP021-EDIT-CARD	UG0401	195
00195	IF ERR-SUB GR 0	UG0401	196
00196	ADD 1 TO BAD-CARDS	UG0401	197
00197	PERFORM MPOX1-PRINT-ERROR	UG0401	198
00198	ELSE	UG0401	199
00199	ADD 1 TO GOOD-CARDS	UG0401	200
00200	MOVE SPACE TO TRAN-RECORD	UG0401	201
00201	MOVE CARD-NR TO TR-CARD-NR	UG0401	202
00202	MOVE CR-DATA TO TR-DATA	UG0401	203
00203	WRITE TRAN-RECORD.	UG0401	204
00204	MP021-EDIT-CARD.	UG0401	205
00205	IF CRD-SERIES NQ HOLD-SERIES	UG0401	206
00206	ADD 1 TO ERR-SUB	UG0401	207
00207	MOVE "INVALID SERIES" TO ERR-MSG (ERR-SUB)	UG0401	208
00208	MOVE "****" TO STAR-I-SERIES.	UG0401	209
00209	EXAMINE CRD-SEQUENC REPLACING LEADING " " BY ZERO.	UG0401	210
00210	IF CRD-SEQUENC NOT NUMERIC	UG0401	211
00211	ADD 1 TO ERR-SUB	UG0401	212
00212	MOVE "INVALID SEQUENCE NR." TO ERR-MSG (ERR-SUB)	UG0401	213
00213	MOVE ALL "*" TO STAR-I-SEQUENC.	UG0401	214
00214	IF CRD-SHEET-TYPE NQ " " AND CRD-SHEET-TYPE NQ "A" AND	UG0401	215
00215	CRD-SHEET-TYPE NQ "B"	UG0401	216
00216	ADD 1 TO ERR-SUB	UG0401	217
00217	MOVE "INVALID SHEET TYPE" TO ERR-MSG (ERR-SUB)	UG0401	218
00218	MOVE "*" TO STAR-I-SHEET	UG0401	219
00219	ELSE	UG0401	220
00220	MOVE "S" TO LINE-NR-STATUS	UG0401	221
00221	PERFORM MP0211-CHECK-LINE	UG0401	222
00222	IF LINE-NR-BAD	UG0401	223
00223	ADD 1 TO ERR-SUB	UG0401	224
00224	MOVE "INVALID LINE NR." TO ERR-MSG (ERR-SUB)	UG0401	225
00225	MOVE "****" TO STAR-I-LINE.	UG0401	226
00226	IF CRD-INTER-CAL NOT NUMERIC	UG0401	227
00227	IF CRD-INTER-CAL-X NQ " "	UG0401	228
00228	ADD 1 TO ERR-SUB	UG0401	229
00229	MOVE "INVALID INTERCALATION" TO ERR-MSG (ERR-SUB)	UG0401	230
00230	MOVE "*" TO STAR-I-INTER.	UG0401	231
00231	IF CRD-ACT-CODE NQ " " AND CRD-ACT-CODE NQ "D" AND	UG0401	232
00232	CRD-ACT-CODE NQ "I" AND CRD-ACT-CODE NQ "R"	UG0401	233
00233	ADD 1 TO ERR-SUB	UG0401	234
00234	MOVE "INVALID ACTIVITY CODE" TO ERR-MSG (ERR-SUB)	UG0401	235
00235	MOVE "*" TO STAR-I-ACT.	UG0401	235
00236	MP0211-CHECK-LINE.	UG0401	237
00237	IF CRD-SHEET-TYPE EQ " "	UG0401	238
00238	IF CRD-LINE-NR-X NUMERIC	UG0401	239
00239	MOVE "F" TO LINE-NR-STATUS	UG0401	240
00240	ELSE	UG0401	241
00241	MOVE " " TO CRD-SHEET-TYPE	UG0401	242
00242	ELSE	UG0401	243
00243	EXAMINE CRD-LINE-NR REPLACING LEADING SPACES BY ZERO	UG0401	244
00244	IF (CRD-LINE-NR NOT NUMERIC OR CRD-LINE-NR GR 200 OR	UG0401	245
00245	(CPD-LINE-NR EQ 0 AND (CRD-INTER-CAL-X EQ " " OR "0"))	UG0401	246
00246	OR (CRD-LINE-NR EQ 200 AND (CRD-INTER-CAL-X NQ " " AND	UG0401	247
00247	CRD-INTER-CAL-X NQ "0"))	UG0401	248
00248	MOVE "F" TO LINE-NR-STATUS.	UG0401	249
00249	MP03-SORT-DATA.	UG0401	250

00250	SORT SORT-FILE ON ASCENDING KEY	UG0401	251
00251	SR-SEQUENC	UG0401	252
00252	SR-LINE-NR	UG0401	253
00253	SR-INTER-CAL	UG0401	254
00254	SR-SHEET-TYPE	UG0401	255
00255	SR-ACT-CODE	UG0401	256
00256	USING TRAN-FILE	UG0401	257
00257	GIVING TRAN-FILE.	UG0401	258
00258	OPEN INPUT TRAN-FILE OUTPUT OTPT-FILE.	UG0401	259
00259	MOVE "1 LISTING OF SORTED DATA" TO PRNT-RECORD.	UG0401	260
00260	WRITE PRNT-RECORD.	UG0401	261
00261	MOVE "0" TO PRNT-RECORD.	UG0401	262
00262	WRITE PRNT-RECORD.	UG0401	263
00263	MOVE SPACE TO PRNT-RECORD.	UG0401	264
00264	MP04-SUMMARIZE.	UG0401	265
00265	ADD 1 TO PAGE-NR.	UG0401	266
00266	MOVE PAGE-NR TO HDR-1-PAGE.	UG0401	267
00267	WRITE PRNT-RECORD FROM HDR-1-RECORD.	UG0401	268
00268	WRITE PRNT-RECORD FROM HDR-4-RECORD.	UG0401	269
00269	MOVE SPACE TO SUMM-RECORD.	UG0401	270
00270	MOVE "0" TO SUMM-CG.	UG0401	271
00271	MOVE "CARDS READ" TO SUMM-TITLE.	UG0401	272
00272	MOVE CARD-NR TO SUMM-COUNT.	UG0401	273
00273	WRITE PRNT-RECORD FROM SUMM-RECORD.	UG0401	274
00274	MOVE "CARDS ACCEPTED" TO SUMM-TITLE.	UG0401	275
00275	MOVE GOOD-CARDS TO SUMM-COUNT.	UG0401	276
00276	WRITE PRNT-RECORD FROM SUMM-RECORD.	UG0401	277
00277	MOVE "CARDS REJECTED" TO SUMM-TITLE.	UG0401	278
00278	MOVE BAD-CARDS TO SUMM-COUNT.	UG0401	279
00279	WRITE PRNT-RECORD FROM SUMM-RECORD.	UG0401	280
00280	CLOSE PRNT-FILE.	UG0401	281
00281	MP0X1-PRINT-ERROR.	UG0401	282
00282	IF LINE-NR GR 57	UG0401	283
00283	PERFORM MP0X11-PRINT-HEADING.	UG0401	284
00284	MOVE SPACE TO ERR-LINE.	UG0401	285
00285	MOVE "0" TO ERR-LINE-CG.	UG0401	286
00286	MOVE CARD-NR TO ERR-LINE-NR.	UG0401	287
00287	MOVE CARD-RECORD TO ERR-LINE-DATA.	UG0401	288
00288	MOVE ERR-MSG (1) TO ERR-LINE-MSG.	UG0401	289
00289	WRITE PRNT-RECORD FROM ERR-LINE.	UG0401	290
00290	ADD 2 TO LINE-NR.	UG0401	291
00291	MOVE SPACE TO ERR-LINE.	UG0401	292
00292	MOVE STAR-RECORD TO ERR-LINE-DATA.	UG0401	293
00293	IF ERR-SUB GR 1	UG0401	294
00294	MOVE ERR-MSG (2) TO ERR-LINE-MSG.	UG0401	295
00295	WRITE PRNT-RECORD FROM ERR-LINE.	UG0401	296
00296	ADD 1 TO LINE-NR.	UG0401	297
00297	IF ERR-SUB GR 2	UG0401	298
00298	MOVE 2 TO SUB1	UG0401	299
00299	PERFORM MP0X12-LIST-MESSAGES UNTIL SUB1 GO ERR-SUB.	UG0401	300
00300	MOVE 0 TO ERR-SUB.	UG0401	301
00301	MOVE SPACE TO ERR-LINE ERR-MESSAGES STAR-RECORD.	UG0401	302
00302	MP0X11-PRINT-HEADING.	UG0401	303
00303	ADD 1 TO PAGE-NR.	UG0401	304
00304	MOVE PAGE-NR TO HDR-1-PAGE.	UG0401	305
00305	WRITE PRNT-RECORD FROM HDR-1-RECORD.	UG0401	306
00306	WRITE PRNT-RECORD FROM HDR-2-RECORD.	UG0401	307

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00307	WRITE PRNT-RECORD FROM HDR-3-RECORD.	UG0401	308
00308	MOVE 4 TO LINE-NR.	UG0401	309
00309	MP0X12-LIST-MESSAGES.	UG0401	310
00310	ADD 1 TO SUB1.	UG0401	311
00311	IF LINE-NR GR 59	UG0401	312
00312	PERFORM MP0X11-PRINT-HEADING.	UG0401	313
00313	MOVE SPACE TO ERR-LINE.	UG0401	314
00314	MOVE ERR-MSG (SUB1) TO ERR-LINE-MSG.	UG0401	315
00315	WRITE PRNT-RECORD FROM ERR-LINE.	UG0401	316
00316	ADD 1 TO LINE-NR.	UG0401	317
00317	MPXX-OUTPUT-DATA.	UG0401	318
00318	READ TRAN-FILE AT END	UG0401	319
00319	MOVE "E" TO TEMP-FILE-FLAG	UG0401	320
00320	CLOSE TRAN-FILE OTPT-FILE.	UG0401	321
00321	IF NOT END-TEMP-FILE	UG0401	322
00322	MOVE TR-DATA TO OTPT-RECORD	UG0401	323
00323	MOVE OTPT-RECORD TO PRNT-DATA	UG0401	324
00324	WRITE OTPT-RECORD	UG0401	325
00325	WRITE PRNT-RECORD.	UG0401	326

UG0401 LENGTH IS 002145
060000B SCM USED

***** H50003S //// END OF LIST ////
***** H50003S //// END OF LIST ////

